

DOE Announces Restructured FutureGen Approach to Demonstrate Carbon Capture and Storage Technology at Multiple Clean Coal Plants

Affirms Commitment to Clean Coal Technology Investments; Requests \$648 Million for Coal Research, Development and Deployment for FY09 Budget - Largest Coal Budget in More Than 25 Years

Washington, DC - U.S. Secretary of Energy Samuel W. Bodman today announced a restructured approach to its FutureGen project that aims to demonstrate cutting-edge carbon capture and storage (CCS) technology at multiple commercial-scale Integrated Gasification Combined Cycle (IGCC) clean coal power plants. Under this strategy, the U.S. Department of Energy (DOE) will join industry in its efforts to build IGCC plants by providing funding for the addition of CCS technology to multiple plants that will be operational by 2015. This approach builds on technological research and development advancements in IGCC and CCS technology achieved over the past five years and is expected to at least double the amount of carbon dioxide sequestered compared to the concept announced in 2003. Clean coal technology is a vital component of the Bush Administration's vision for a cleaner, more secure energy future and this more cost-effective approach will demonstrate IGCC-CCS clean coal technology to enable wider use and commercialization more rapidly.

Secretary Bodman also today announced President Bush's budget request of \$648 million for the DOE Office of Fossil Energy's advanced coal technology research, development and demonstration program for Fiscal Year (FY) 2009. The FY09 budget requests \$407 million for coal research -- including development of more efficient gasification and turbine technologies, innovations for existing coal power plants, and large-scale CCS injection tests -- and \$241 million to demonstrate technologies for cost-effective carbon capture and storage for coal-fired power plants, including \$156 million for the restructured FutureGen approach and \$85 million for DOE's Clean Coal Power Initiative. This \$648 million request represents a \$129 million increase from the President's FY2008 request and is the largest amount requested for DOE's coal program in more than 25 years.

MORE INFO

- [Read the FutureGen Request for Information](#)
- [FutureGen Factsheet](#)
- [FY09 Coal Programs Budget Overview](#)

"This restructured FutureGen approach is an all-around better investment for Americans. As technological advancements have been realized in the last five years, we are eager to demonstrate CCS technology on commercial plants that when operational, will be the cleanest coal-fired plants in the world. Each of these plants will sequester at least one million metric tons of carbon dioxide annually and help meet our nation's rapidly growing energy demand," Secretary Bodman said. "Coal is our nation's most abundant energy resource powering over half of the homes in America. To ensure a clean, reliable and affordable energy future, the Department of Energy is planning the largest budget request in over 25 years focusing on demonstrating advanced technology like carbon capture and storage so that the technology can be perfected and rapidly deployed across the country."

The Department today issued a Request for Information (RFI) that seeks industry's input by March 3, 2008, on the costs and feasibility associated with building clean coal facilities that achieve the intended goals of FutureGen. Following this period and consideration of industry comment, DOE intends to issue a Funding Opportunity Announcement - or competitive solicitation - to provide federal funding under cooperative agreements to equip IGCC (or other clean coal technology) commercial power plants that generate at least 300 megawatts, with CCS technology aimed at accelerating near-term technology deployment. Initial input from industry will assist in determining how many demonstrations can be commissioned.

This restructured approach allows DOE to maximize the role of private sector innovation, provide a ceiling on federal contributions, and accelerate the Administration's goal of increasing the use of clean energy technologies to help meet the steadily growing demand for energy while also mitigating greenhouse gas emissions. Under this plan, DOE's investment would provide funding for no more than the CCS component of the power plant - not the entire plant construction, compared with the FutureGen concept announced in 2003 where the federal government would incur 74% of rising costs. This would allow for commercial operation of IGCC power plants equipped with CCS technology to begin as soon as the plants are commissioned, between 2015 and 2016.

The FutureGen concept announced in 2003 planned the creation of a near-zero emissions, 275 MW power plant that produced hydrogen and electricity from coal on a smaller-than-commercial-scale, serving as a laboratory for technology development. Today's announcement builds on advancements in technology made since 2003 and allows for electricity to be produced and greenhouse gas emissions sequestered at a rate and scale that offers tremendous potential for commercial viability. The restructured approach will focus on separating carbon dioxide (CO₂) for CCS, and does not include hydrogen production, which the concept announced in 2003 included; however, hydrogen production for commercial use will remain an important component of DOE's other energy initiatives. Also, engagement with the international community will remain an integral part of DOE's efforts to advance CCS technology on a global scale.

The four sites - two in Illinois and two in Texas - evaluated in the Department's Environmental Impact Statement issued in November 2007, including the site announced

by the FutureGen Alliance in December 2007, Mattoon, IL, may be eligible to host a commercial-scale IGCC plant with CCS technology. The site analysis and characterization data at these sites may be applicable to future environmental analyses under this restructured approach. More than one site may be selected as a host for the commercial demonstration of CCS technology and DOE encourages applicants to include these four sites in their consideration for this restructured approach. Also, the FutureGen Alliance's 13 member companies may compete with all the other applicants.

This restructured approach builds on the Administration's investment of more than \$2.5 billion in clean coal technology since 2001, which includes small-scale carbon sequestration projects and IGCC research that have advanced our understanding of the potential for clean coal technology. It is also consistent with a key recommendation of last year's Massachusetts Institute of Technology Study, "The Future of Coal," which indicated that "the main purpose of the [FutureGen] project should be to demonstrate commercial viability of coal-based power generation with CCS." The Administration's Clean Coal Power Initiative, as well as awards of \$1.65 billion in clean coal tax incentives, and the use of loan guarantees, are other key components of DOE's efforts to demonstrate the potential of advanced clean coal technologies to meet growing energy demand.

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